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Procedia - Social and Behavioral Sciences 199 (2015) 563 – 570

Procedia
Social and Behavioral Sciences

GlobELT: An International Conference on Teaching and Learning English as an Additional Language, Antalya - Turkey

Self-efficacy for learning vs ILS results in a group of English learning bachelor students

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Abstract

The main purpose of this paper is to investigate the relationship between learning style preferences and self-efficacy for learning in a group of bachelor students of Tourism Management at the University of Hradec Kralove. This study assessed if the specific learning style preferences of the university students, who took part in the research within lessons of professional English language, were associated with their self-efficacy for learning. The present study was applied in the winter semester of the 2013-14 academic year among first and third year students. The data collection tool includes Felder´s Index of learning style (ILS) and a research-made questionnaire of English lesson self-efficacy of students. Our results not only showed that there was a significant positive relationship between all of the learning style preferences with academic English lesson self-efficacy of students, but they also provided a good foundation for English language teachers from the Department of Applied Linguistics to design a teaching approach that would address the learning needs of all students.

Peer-review under responsibility of Hacettepe Üniversitesi.

Keywords: Learning styles; self-efficacy for learning; index of learning styles (ILS); ILS results

1. Introduction

In a decade of researching digital education there have been fundamental changes in education paradigms. Terms like divergent thinking, creativity, variability, and interactive skills have been discussed widely in the field of educational process. Professor Philip Zimbardo claims that young people today will never fit into a traditional

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Peer-review under responsibility of Hacettepe Üniversitesi.
doi:10.1016/j.sbspro.2015.07.548

analogue classroom as their brains are digitally re-wired (Zimbardo1, 2008). That is why the emphasis on motivation, especially the learning and teaching aspects of motivation in academic field, is so important. Student motivation deals with a student's desire to actively participate in the learning process. When students' level of motivation and interest to learn is increased through various motivational activities, there is the probability that they will invest all their time and effort to attain their set goals (Nukpe, 2012).Therefore, making sure students' goals and values are in sync with academic aims is vital for generating and sustaining a high level of student motivation. This in turn leads to self-efficacy, self-confidence and consequently learning style models.

In the attempt to reflect the new changes in educational process we have decided to assess the relationship between personal belief of competency - self-efficacy and our student´s learning style preferences. The participants in this short term study were 223 first and third-year bachelor students of Management of Tourism at Faculty of Informatics and Management, University of Hradec Kralove. Among the participants 83 were males and 140 were females. The study was conducted during the academic year 2014-15.

1.1. Self-efficacy

Through increased levels of motivation, the student is able to believe that he/she has the confidence and capacity to achieve (self-efficacy) and has the learning process under control. (Bandura, 1997). In other words, self-efficacy is a person's belief in his or her ability to succeed in a particular situation. Bandura described these beliefs as determinants of how people think, behave, and feel (Bandura, 1994).The concept of self-efficacy is closely connected with his social cognitive theory. Bandura and other scientists have found that an individual's self-efficacy plays a major role in how goals, tasks, and challenges are approached. See. Fig.1.

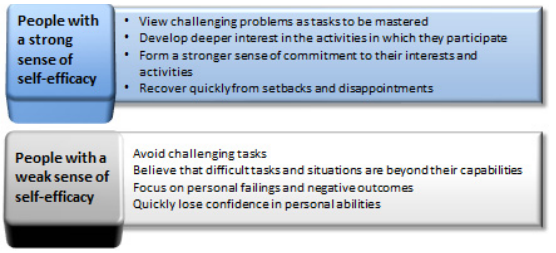

Fig. 1. Features of strong and weak sense of self-efficacy

In our research we were interested in understanding the reasons why students select some activities, avoid others, succeed in some academic pursuits, fail at others, why they are excited or panic at the thought of doing particular tasks, or what it is that students believe about themselves.

1.2. Learning style preferences

Learning styles refer to the concept that we, as individuals, process and perceive information in different ways. There are many different factors that can lead to the differences that arise within learning styles. These factors include, but are not limited to, personality, ability to process information, self-efficacy, sensory intake processes or some complex combination of these and other differences (Dumbauld et al., 2014). In our research we applied one of the most widely used models of learning styles developed by Dr Felder and Linda Silverman. According to this model there are four dichotomous dimensions of learning style preferences. See Fig.2. We can imagine these dimensions as a continuum with one learning preference on the far left and the other on the far right. Once we identify where a student´s preferences lie on each of these dimensions, we can develop a more balanced approach to learning, which brings the improvement of learning effectiveness. Balance is the keyword.

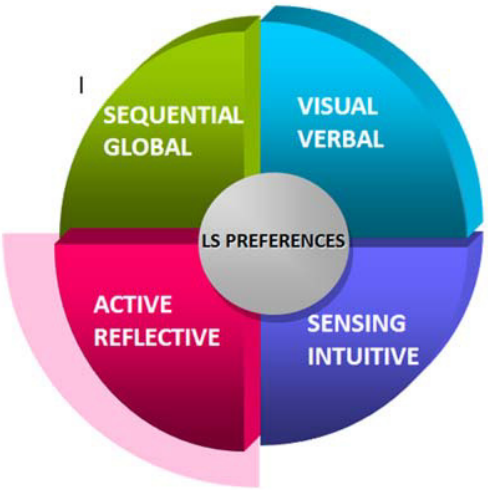

Fig. 2. Four dichotomous dimensions of learning style preferences

2. Methods and instruments

2.1. Self-efficacy questionnaire

Students' self-perceptions of efficacy are distinctive from related motivational constructs because of their specificity and close correspondence to performance tasks. Students were asked to take part in the survey and fill out the questionnaire uploaded in the Professional English Language online course in the University Blackboard LMS. The questionnaire contained two parts; the first detected preferences towards certain study materials widely used in the academic field and the second related to individual learning style preferences in a selected group of 223 bachelor students of Management and Tourism. According to the acquired data we can state that most students consider themselves to be primarily active (18%) or visual (18%) types of students, on the other hand, only 7% of students prefer a reflective or verbal approach to the learning process. As shown in Fig 7. later in this paper, especially in the visual preference the students agreed with their standardized questionnaire ILS outputs.

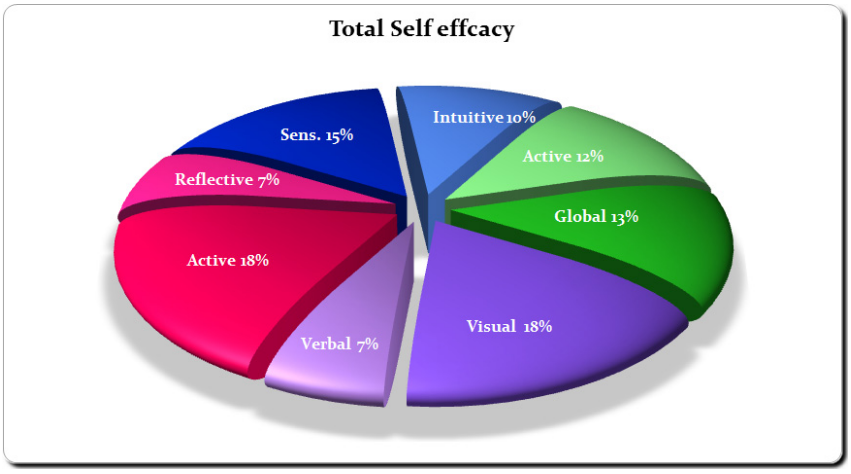

Fig. 3. Self –perceptions of efficacy

We have also questioned students about their study material preferences. The results clearly show that visual - PowerPoint and interactive online study materials are appreciated by our students more than any others. This finding is fully consistent with the results we obtained from the LS preferences questionnaire. Most visual students prefer visual types of study materials. Interestingly, printed study materials – monographs, specialized books and recommended reading lists are on our students' "black list". As professor Felder states in one of his publications related to the Felder-Silverman Learning Style Model:" Cognitive scientists have established that our brains generally convert written words into their spoken equivalents and process them in the same way that they process spoken words. Written words are therefore not equivalent to real visual information: to a visual learner, a picture is truly worth a thousand words, whether they are spoken or written. Making the learning style pair visual and verbal solves this problem by permitting spoken and written words to be included in the same category (verbal)." (Felder, Henriques, 1995, p.23)

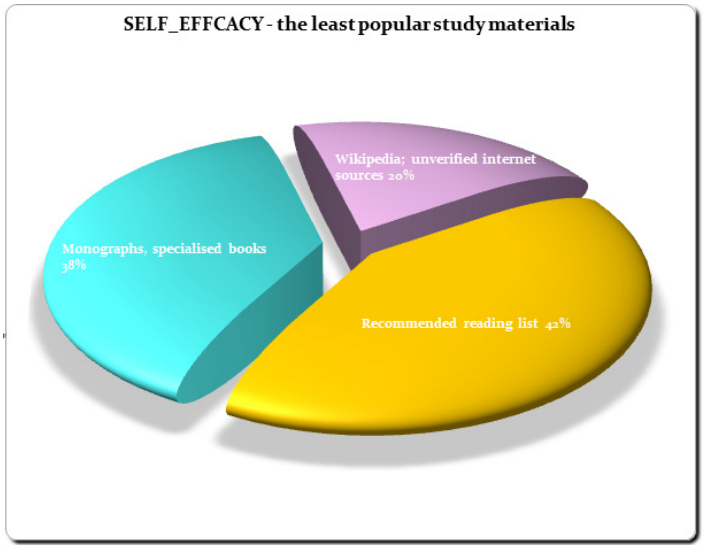

Fig. 4. Four dichotomous dimensions of learning style preferences

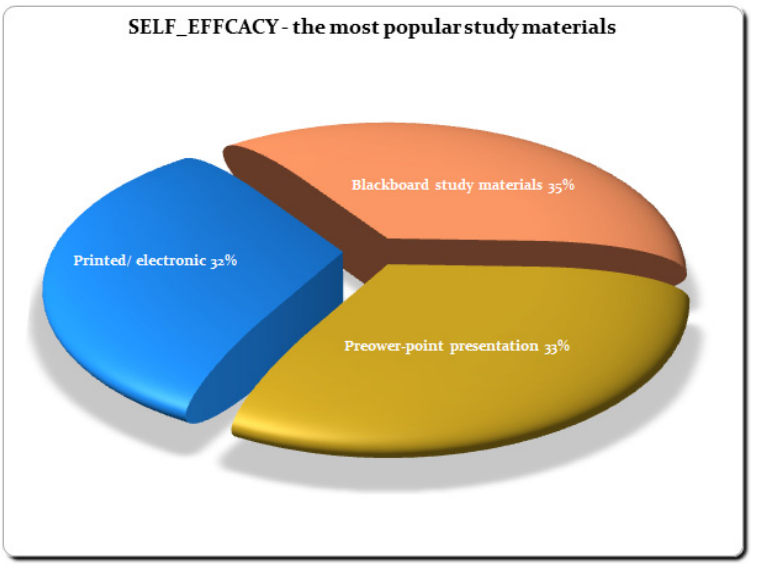

Fig. 5. Four dichotomous dimensions of learning style preferences

2.2. 2.2. ILS questionnaire

The ILS (Index of Learning Styles), forty-four multiple choice and self-scoring web-based questionnaire that assesses preferences on the Sensing/Intuiting, Visual/Verbal, Active/Reflective, and Sequential/Global dimensions was the instrument used in this study to detect our bachelor students' learning style preference. After taking the survey on-line (the ILS link was uploaded into the Blackboard Professional English Language course at Faculty of Informatics and Management), students received instant results in the form of a profile of their dominant learning styles. We can imagine the ILS result as the four scales of the ILS, with two opposite (dichotomous) categories of each scale. If you score 1 or 3 on both sides, it means you have a mild or balanced preference for one of the particular LS, if you score 5 or 7 on both sides you have a moderate preference and if your score is 9 or 11 you have a strong LS preference. It took the students an average of around 50 minutes to complete the questionnaire. The graph, see Figure 6, shows the percentages of participants displaying preference to Sensing (20%), Visual (19%), Active (15%), Sequential (14%), Global (11%), Reflective (10%), Verbal (6%) and Intuitive (5%) learning style.

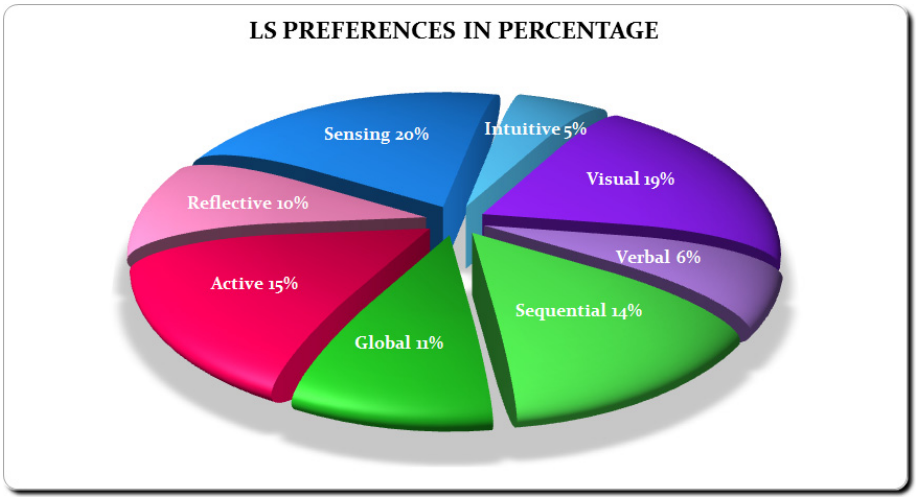

Fig. 6. Four dichotomous dimensions of learning style preferences

3. Results and discussion

The descriptive statistics and subsequent analyses of collected data focusing on learning style preferences whether in terms of students´ self-perception, or based on the results of the ILS standardized questionnaire indicate that there are minor discrepancies between the two compared models. See Fig.7.In most cases, the difference between students' self-perception and the ILS results is marginal; however, there is major alteration in Sensing (15%vs20%) and Intuitive (10%vs5%) LS preference. Most of our students see themselves as active and visual (18%), which basically confirms the results obtained from the ILS questionnaire. The situation is very similar in the other indicators of both models detecting learning styles preferences, namely Global (13%vs11%), Sequential (12%vs14%), Reflective (7%vs10%) and Verbal (7%vs6%).

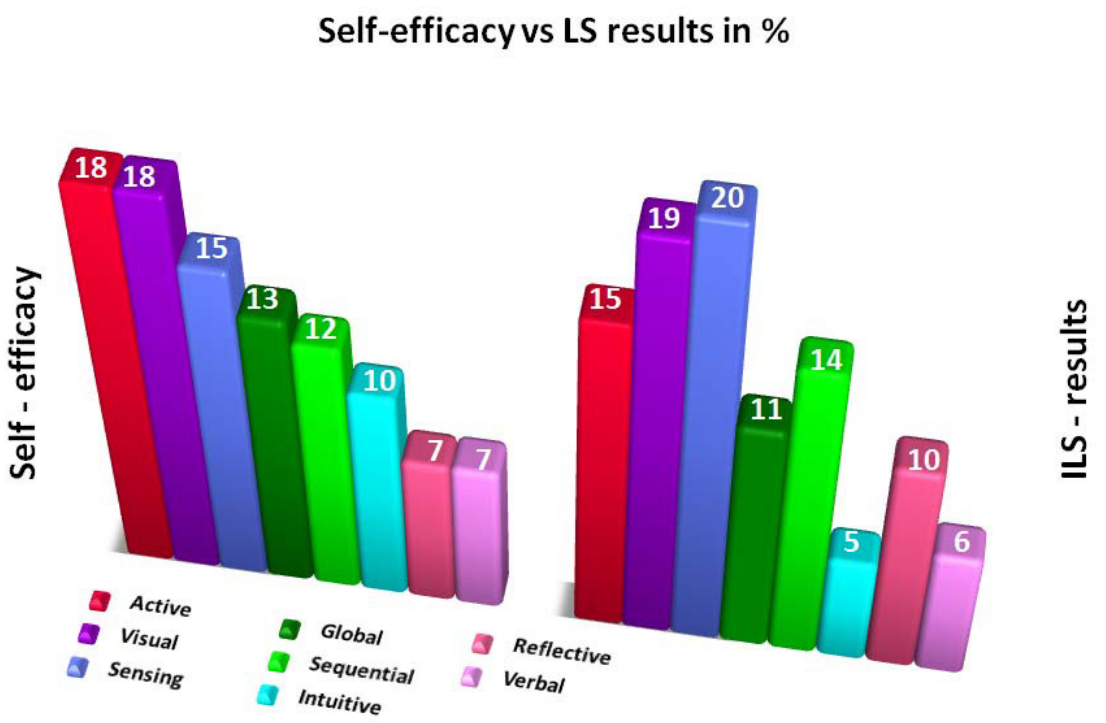

Fig. 7. The comparison of self-efficacy and ILS results.

Several major implications are apparent from the data achieved: 1. Most of our students learn differently. 2. Most of our students have different preferences in study materials. 3. Our students´ self-perceptions of efficacy vary in key areas from the results of ILS standardized questionnaire. Tellingly, the results differ most noticeably in sensing and intuitive learning style preferences.

To address these differences, a variety of teaching styles and strategies have been used in the teaching process, namely in the Professional English language course both, in face to face lessons and e-course exercises uploaded the in Blackboard LMS.

It is well known that learning style preferences may be strong, weak, or nearly non-existent. On the other hand, however strong a student´s preference is for a particular learning style, they can develop their ability to learn via the "opposite" learning style. In the group of our 223 bachelor students of Tourism Management one indicator matches in both cases (self-efficacy and ILS questionnaires), and that is that our students are primarily visual.

As we wished to create an effective academic learning environment, we had to respect certain rules, reflecting:

1) emphasized type of information: concrete, sensing—factual, or abstract, intuitive—conceptual, theoretical
2) stressed mode of presentation: visual—pictures, diagrams, films, demonstrations, or verbal— lectures, readings, discussions
3) mode of student participation: active—students talk, move, reflect, or passive, reflective—students watch and listen
4) type of perspective provided on presented information: sequential—step-by-step progression, or global—context and relevance . See Fig.8.

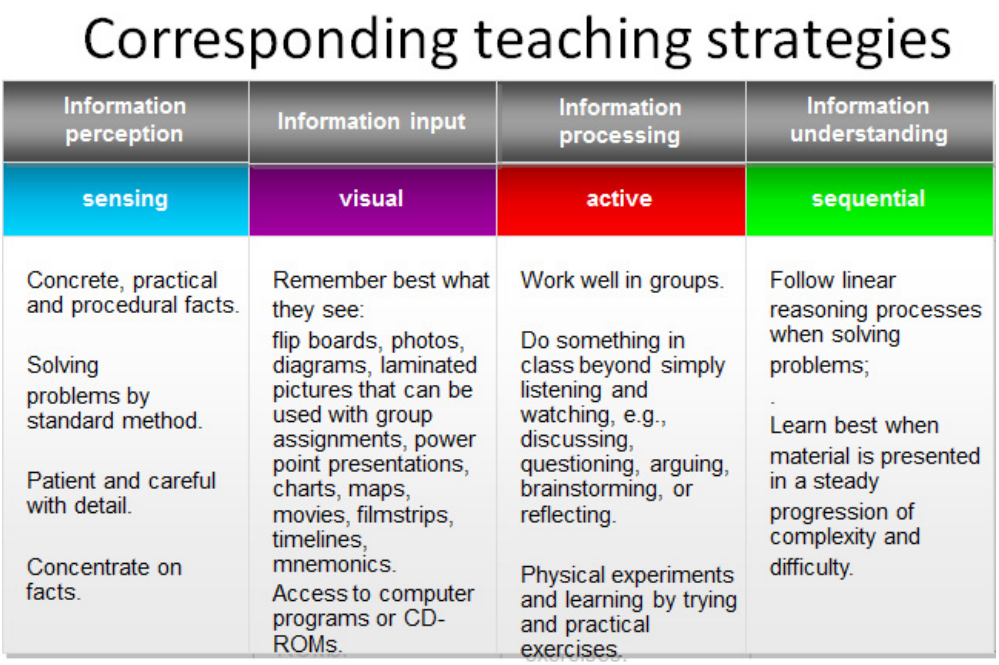

Fig. 8. Learning styles and corresponding teaching strategies.

Our students demonstrate a wide range of learning style preferences, and our challenge as teachers and instructors is to provide the variety that helps them learn quickly and well i.e. provide a balanced learning experience by: implementing hard facts and general concepts (Sensory-Intuitive), incorporating both visual and verbal cues (Visual-Verbal),allowing both experiential learning and time for evaluation and analysis (Active-Reflective) and providing detail in a structured way, as well as the big picture (Sequential-Global).

4. Conclusion

Learning styles and preferences vary for each of the selected 223 bachelor students of Tourism Management at Faculty of Informatics and management, University of Hradec Kralove. By understanding this, and developing the skills that help them learn in a variety of ways, we can make the most of our students´ learning potential. Our students' self-perceptions of efficacy vary in key areas from the results of ILS standardized questionnaire, namely in sensing and intuitive learning style preference. On the other hand, most of our students have the same results in the preference to Visual learning style, which means that we should implement corresponding teaching strategies in our teaching process.

By understanding that our students have different learning preferences, we can learn to communicate our academic subject effectively in a way that many more students can understand. This is fundamentally important, particularly for us – teachers as communication is an important part of our job. (Milková, Vymetálková, 2014, p.620)

The importance of self-belief, otherwise called self-efficacy, has been studied by many researchers at the academic level. Relations between self-efficacy and learning style, learning-style and performance, and self-efficacy and performance have been independently investigated by others in a variety of contexts. In this paper the link between learning style preferences and self-efficacy was investigated in the context of the Professional English language course for bachelor students of Tourism Management (i.e. Blackboard e-course material balances).

Our students´ learning style dimension preferences (active/reflective, sensing/intuitive, visual/verbal, and sequential global) were analyzed by using the Felder-Silverman model of learning styles, and the subsequent Felder-Soloman Index of Learning Styles (ILS) indicator.

The data collected included ILS results and self-efficacy survey responses, which were both administered in university Blackboard LMS. The results provide evidence regarding whether the learning styles results and self-efficacy are in accordance.

The author believes that this study of learning styles and self-efficacy using the Felder-Silverman model in the context of a traditional, lecture-based Tourism Management course provides valuable information, which could efficiently be used in this field of academic education. It is commonly acknowledged that every academic field attracts a certain "type" of student, but a correlation between learning styles and success that demonstrates similarities among students who do not succeed in professional English language course (English for Tourism Management) would suggest that our course design and content has been troubling students otherwise interested in this course-academic field. A better understanding of students´ backgrounds is invaluable in developing improved lecture-based and online courses, especially in the ever-changing modern classroom.

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